Notice of Allowability	Application No.	Applicant(s)	
	10/759,598	SHIRAISHI, NAOMASA	
	Examiner	Art Unit	
	Alan A. Mathews	2851	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☐ This communication is responsive to _____.
2. ☒ The allowed claim(s) is/are *55-141*.
3. ☒ The drawings filed on *20 January 2004* are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☒ All b) ☐ Some* c) ☐ None of the:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☒ Certified copies of the priority documents have been received in Application No. *08/549,325* .
      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
   (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date 1/04; 5//04; 7/04
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

REASONS FOR ALLOWANCE

1. The following is an examiner's statement of reasons for allowance:

The prior art does not disclose or suggest a shaping optical system provided on the optical path in the illumination optical system to shape each of the different intensity distributions, that includes first optical members on the optical axis of which at least one is movable in a direction along the optical axis to change the one intensity distribution in the off-axis illumination mode so that the increased intensity portion of the one intensity distribution is variable, and another one of the different intensity distributions in the on-axis illumination mode, respectively in combination with all the other elements recited in independent claim 55.

The prior art does not disclose or suggest a shaping optical system provided on the optical path in the illumination optical system to shape each of the different intensity distributions, that includes a deflection optical element to generate a deflected beam with the illumination beam and an array optical device both provided on the optical path in the off-axis illumination mode to shape the one intensity distribution having the increased intensity portion by distributing the deflected beam from the deflection optical element on the pupil plane through the array optical device having a plurality of optical elements two-dimensionally arranged on a plane perpendicular to the optical axis in combination with all the other elements recited in independent claim 85.

The prior art does not disclose or suggest a shaping optical system provided on the optical path in the illumination optical system, that includes a first unit having first optical devices on a first holding member, of which one is provided on the optical path to shape the one intensity distribution, and is exchanged for another one of the first optical devices by moving the first holding member to shape an intensity distribution different from the one intensity distribution, and a second unit having second optical devices on a second holding member, of which one is provided on the optical path when the intensity distribution is shaped, and is exchanged for another one of the second optical devices by moving the second holding member when an intensity distribution different from the one intensity distribution is shaped. In combination with all the other elements recited in independent claim 99.

The prior art does not disclose or suggest a shaping optical system provided on the optical path in the illumination optical system, that includes first and second optical members different from the movable one of the plurality of optical members to shape each of the different intensity distributions, the first optical members being relatively movable in a second direction along the optical axis, and one of the second optical members being provided on the optical path in the off-axis illumination mode to shape the one intensity distribution and exchanged for another one of the second optical members to shape a different intensity distribution from the one intensity distribution in combination with all the other elements recited in independent claim 109.

The prior art does not disclose or suggest a shaping optical system provided on the optical path in the illumination optical system to shape each of the different intensity distributions, that includes first optical members on the optical axis, of which at least one is movable in a direction along the optical axis to change the one intensity distribution in the off-axis illumination mode so that the increased intensity portion of the one intensity distribution is variable, and another one of the different intensity distributions in the on-axis illumination mode, respectively, in combination with all the other elements recited in independent claim 115.

The prior art does not disclose or suggest a shaping optical system provided on the optical path in the illumination optical system to shape each of the different intensity distributions, that includes a deflection optical element to generate a deflected beam with the illumination beam and an array optical device both provided on the optical path in the off-axis illumination mode to shape the one intensity distribution having the increased intensity portion by distributing the deflected beam from the deflection optical element on the pupil plane through the array optical device having a plurality of optical elements two-dimensionally arranged on a plane perpendicular to the optical axis in combination with all the other elements recited in independent claim 128.

The prior art does not disclose or suggest a shaping optical system provided on the optical path in the illumination optical system, that includes a first unit having first

optical devices on a first holding member, of which one is provided on the optical path to shape the one intensity distribution, and is exchanged for another one of the first optical devices by moving the first holding member to shape an intensity distribution different from the one intensity distribution, and a second unit having second optical devices on a second holding member, of which one is provided on the optical path when the one intensity distribution is shaped, and is exchanged for another one of the second optical devices by moving the second holding member when an intensity distribution different from the one intensity distribution is shaped in combination with all the other elements recited in independent claim 134.

The prior art does not disclose or suggest a shaping optical system provided on the optical path in the illumination optical system, that includes first and second optical optical members different from the movable one of the plurality of optical members to shape each of the different intensity distributions, the first optical members being relatively movable in a second direction along the optical axis, and one of the second optical members being provided on the optical path in the off-axis illumination mode to shape the one intensity distribution and exchanged for another one of the second optical members to shape a different intensity distribution from the one intensity distribution in combination with all the other elements recited in independent claim 139.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alan A. Mathews whose telephone number is (571) 272-2123. The examiner can normally be reached on Monday through Friday from 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on (571) 272-2258. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Alan A. Mathews
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Art Unit 2851

AAM